10002710

(FILE 'HOME' ENTERED AT 19:50:04 ON 14 JAN 2006)

FILE 'REGISTRY' ENTERED AT 19:50:10 ON 14 JAN 2006

L1 STRUCTURE UPLOADED
L2 50 S L1

FILE 'CA, CAPLUS, USPATFULL' ENTERED AT 19:52:43 ON 14 JAN 2006

L3 141 S L2
L4 22473 S SILSESQUIOXANE
L5 2771 S TRIMETHYLHEXYL
L6 323 S TRIMETHYLOCTYL
L7 578 S TRIMETHYLNONYL
L8 85 S TRIMETHYLALKYL
L9 3679 S L8 OR L7 OR L6 OR L5
L10 690279 S EMULSION
L11 6 S L3 AND L10
L12 5 DUP REM L11 (1 DUPLICATE REMOVED)
L13 0 S L9 (W) L4
L14 9 S L9 AND L4
L15 3 S L14 AND L10
L16

Blessing

WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Saturday, January 14, 2006

Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ		
☐	L12	5643555.pn. or 6489274.pn.	4
☐	L11	6770123.pn.	2
☐	L10	6143309.pn. or 5932231.pn. or 6143309.pn.	4
☐	L9	caprylyl trimethicone	15
☐	L8	6143309.pn. or 5932231.pn. or 6143309.pn.	4
☐	L7	trimethylsilylalkyl adj silsesquioxane	4
☐	L6	L5 and l4	1
☐	L5	silsesquioxane and emulsion	474
☐	L4	L3 adj silsesquioxane	4
☐	L3	trimethylsilylalkyl	148
☐	L2	silesquioxane and emulsion	24
	DB=PGPB; PLUR=YES; OP=ADJ		
☐	L1	20030086888.pn.	1

END OF SEARCH HISTORY

L16 ANSWER 1 OF 3 USPATFULL on STN
ACCESSION NUMBER: 2005:93485 USPATFULL
TITLE: Poly(arylene ether) composition and method of molding
INVENTOR(S): Gerus, Cynthia, Delmar, NY, UNITED STATES
Klei, Steven R., Guilderland, NY, UNITED STATES
Riding, Geoffrey, Castleton, NY, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005080164	A1	20050414	
APPLICATION INFO.:	US 2003-723198	A1	20031126	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2003-510249P	20031010	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: CANTOR COLBURN, LLP, 55 GRIFFIN ROAD SOUTH, BLOOMFIELD, CT, 06002, US
NUMBER OF CLAIMS: 52
EXEMPLARY CLAIM: 1
LINE COUNT: 827
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A low gloss thermoplastic composition comprises poly(arylene ether), a rubber-modified poly(alkenyl aromatic) resin and an acrylonitrile containing polymer gel.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . styrene monomer, based on the total weight of the acrylonitrile polymer. The acrylonitrile polymers and copolymers may be prepared by **emulsion**, bulk, suspension, bulk-suspension or solution polymerization methods which are well known in the art. Such acrylonitrile copolymers may also be. . .
DETD . . . diameter less than or equal to 100 micrometer size and comprise polysiloxanes. In one embodiment the polysiloxane microspheres comprise polymethyl **silsesquioxane** and have a size distribution of about 0.5 to about 10 micrometers. Preferred polysiloxane microspheres comprise polymethyl **silsesquioxane** and are commercially available under the tradename Tospearl from General Electric, Pittsfield, Mass.
DETD . . . tritolyl phosphate, bis-(2-ethylhexyl) phenyl phosphate, tri-(nonylphenyl) phosphate, di (dodecyl) p-tolyl phosphate, tricresyl phosphate, triphenyl phosphate, dibutylphenyl phosphate, 2-chloroethyldiphenyl phosphate, p-tolyl bis(2,5,5'-**trimethylhexyl**) phosphate, 2-ethylhexyldiphenyl phosphate, and the like. The preferred phosphates are those in which each R is aryl. Especially preferred is. . .

L16 ANSWER 2 OF 3 USPATFULL on STN
ACCESSION NUMBER: 2004:262019 USPATFULL
TITLE: Additive functionalized organophilic nano-scaled fillers
INVENTOR(S): Camenzind, Hugo, Bern, SWITZERLAND
Herbst, Heinz, Lorrach, GERMANY, FEDERAL REPUBLIC OF
Wunderlich, Wiebke, Bologna, ITALY

10002710

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004204521	A1	20041014	
APPLICATION INFO.:	US 2003-481964	A1	20031222	(10)
	WO 2002-EP6848		20020620	

	NUMBER	DATE
PRIORITY INFORMATION:	EP 2001-810634	20010629

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: CIBA SPECIALTY CHEMICALS CORPORATION, PATENT DEPARTMENT, 540 WHITE PLAINS RD, P O BOX 2005, TARRYTOWN, NY, 10591-9005
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
LINE COUNT: 1678
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention discloses a product obtainable by reacting a nano-scaled filler with a compound of the formula (I): AD-L-RG, wherein AD is an additive selected from the group of radical scavengers, hydroperoxide decomposers, UV-absorbers, light stabilizers, flame retardants or photoinitiators, L is a spacer, RG is a reactive group, and the nano-scaled filler can be of unmodified or organophilically modified character. These products are for example useful as stabilizers and/or compatibilizers in organic materials, or as photoinitiators in pre-polymeric or pre-crosslinking formulations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . propyl, isopropyl, n-butyl, sec-butyl, isobutyl, tert-butyl, 2-ethylbutyl, n-pentyl, isopentyl, 1-methylpentyl, 1,3-dimethylbutyl, n-hexyl, 1-methylhexyl, n-heptyl, isoheptyl, 1,1,3,3-tetra-methylbutyl, 1-methylheptyl, 3-methylheptyl, n-octyl, 2-ethylhexyl, 1,1,3-**trimethylhexyl**, 1,1,3,3-tetramethylpentyl, nonyl, decyl, undecyl, 1-methylundecyl, dodecyl, 1,1,3,3,5,5-hexamethylhexyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, icosyl or docosyl.

SUMM . . . Al.sub.2O.sub.3, In.sub.2O.sub.3 or mixed oxides, including colloidal silica [e.g. Klebo-sol®], or organosols [e.g. Hilink® OG from Clariant], or polyhedral oligomeric **silsesquioxanes** [e.g. POSS® from Hybrid Plastics] with compatibilizing or reactive organic modifications like hydrocarbon,. silane or siloxane chains, with or without. . .

SUMM . . . of synthetic esters with mineral oils in any weight ratios, typically those used as spinning compositions, as well as aqueous **emulsions** of such materials.

SUMM [0163] 31. Aqueous **emulsions** of natural or synthetic rubber, e.g. natural latex or latices of carboxylated styrene/butadiene copolymers.

L16 ANSWER 3 OF 3 USPATFULL on STN
ACCESSION NUMBER: 86:61912 USPATFULL
TITLE: Method of preparing polyorganosiloxane **emulsions** having small particle size
INVENTOR(S): Gee, Ronald P., Midland, MI, United States
PATENT ASSIGNEE(S): Dow Corning Corporation, Midland, MI, United States (U.S. corporation)

Blessing

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4620878		19861104
APPLICATION INFO.:	US 1983-542639		19831017 (6)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Yarbrough, Amelia B.
LEGAL REPRESENTATIVE: Blank, Christopher E.
NUMBER OF CLAIMS: 97
EXEMPLARY CLAIM: 1
LINE COUNT: 1789
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of preparing fine polyorganosiloxane **emulsions** with an average particle size of less than 0.3 micron and polyorganosiloxane microemulsions with an average particle size of less than 0.14 micron is described. A translucent oil concentrate is prepared by mixing a polyorganosiloxane which contains polar groups, a surfactant which is insoluble in the polyorganosiloxane, and sufficient water to obtain a translucent mixture. The translucent oil concentrate is then rapidly dispersed in water to form the desired fine **emulsion** or microemulsion. In general, if the translucent oil concentrate is not transparent a fine **emulsion** with an average particle size of less than 0.3 micron is obtained; whereas, if the oil concentrate is transparent, a microemulsion with an average particle size of less than 0.14 micron is obtained.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Method of preparing polyorganosiloxane **emulsions** having small particle size

AB A method of preparing fine polyorganosiloxane **emulsions** with an average particle size of less than 0.3 micron and polyorganosiloxane microemulsions with an average particle size of less. . . to obtain a translucent mixture. The translucent oil concentrate is then rapidly dispersed in water to form the desired fine **emulsion** or microemulsion. In general, if the translucent oil concentrate is not transparent a fine **emulsion** with an average particle size of less than 0.3 micron is obtained; whereas, if the oil concentrate is transparent, a. . .

SUMM This invention relates to fine **emulsions** of polyorganosiloxanes wherein the average particle size of the polyorganosiloxane in the fine **emulsion** is less than about 0.3 micron. This invention also relates to microemulsions of polyorganosiloxanes wherein the average particle size of. . . polyorganosiloxane in the microemulsion is less than 0.14 micron. This invention also relates to a method of preparing such fine **emulsions** and microemulsions of the oil-in-water type. Such **emulsions** with small particle size droplets or aggregrates are generally translucent or transparent in appearance.

SUMM Generally, translucent or transparent **emulsions** are difficult to prepare. The oil-in-water type microemulsions are generally more difficult to make than the water-in-oil type microemulsions. Only a few, limited examples of polyorganosiloxanes as the oil phase in such translucent or transparent **emulsions** are known. Rosano in U.S. Pat. No. 4,146,499 (issued Mar. 27, 1979) teaches a method of preparing an oil-in-water microemulsion.. . . the selected first surfactant in the oil to be emulsified in an amount effective to yield a milky or

lactescent **emulsion** of the emulsified oil in an aqueous phase; (3) adding the oil with the dissolved first surfactant to the water. . . prior to addition of the oil with the dissolved first surfactant or it may be used to titrate the lactescent **emulsion** prepared in the third step until the desired substantially clear microemulsion is obtained. When a hydrophobic oil, which is not. . .

SUMM . . . Pat. No. 3,433,780 (issued Mar. 18, 1969) teach the preparation of colloid suspensions (particle size less than 0.1 micron) of **silsesquioxanes** of unit formula RSiO.sub.3/2 where R is a hydrocarbon or substituted hydrocarbon radical containing from 1 to 7 carbon atoms.. . . to the preparation of siloxanes of general formula RSiO.sub.3/2 only. The procedure of Cekada et al. is an example of **emulsion** polymerization.

SUMM This invention relates to a process for preparing a polyorganosiloxane **emulsion** of the oil-in-water type, said process comprising

SUMM (B) forming a polyorganosiloxane **emulsion** of the oil-in-water type by rapidly dispersing said translucent oil concentrate in water where the average particle size of said polyorganosiloxane in said **emulsion** is less than about 0.3 microns.

SUMM This invention also relates to another process for preparing a polyorganosiloxane **emulsion** of the oil-in-water type, said process comprising

SUMM (B) forming a polyorganosiloxane **emulsion** of the oil-in-water type by rapidly dispersing said translucent oil concentrate in water where the average particle size of said polyorganosiloxane in said **emulsion** is less than about 0.3 microns.

SUMM wherein said oil concentrate, when rapidly dispersed in water, will produce a polyorganosiloxane **emulsion** of the oil-in-water type with an average particle size of said polyorganosiloxane in said **emulsion** of less than about 0.3 micron.

SUMM wherein said polyorganosiloxane is the disperse phase and water is the continuous phase, wherein said polyorganosiloxane in said **emulsion** has an average particle size of less than 0.14 microns and wherein said polyorganosiloxane microemulsion is transparent.

SUMM . . . Although the applicant does not wish to be held to theory it is believed that the oil concentrate is an **emulsion** of the water-in-oil type with a small average particle size. Transparent oil concentrates may be microemulsions of the water-in-oil type.

SUMM . . . either used shortly after their preparation or, in many cases, months or even years after their preparation to prepare fine **emulsions** or microemulsions containing polyorganosiloxane of the oil-in-water type. In general, oil concentrates containing polyorganosiloxanes which readily react with water will not have long term stability. Such oil concentrates should be employed soon after preparation. To prepare the fine **emulsions** or microemulsions of this invention, the translucent or transparent oil concentrate is rapidly dispersed in water. In general, the more rapid the dispersion of the oil concentrate in water the smaller the average particle size of the resulting **emulsion**. In general translucent oil concentrates which are visually hazy, when rapidly dispersed in water, give fine **emulsion** with average particle size less than 0.3 microns. Translucent oil concentrates which are transparent or clear generally yield microemulsions where. . . 0.14 microns when rapidly dispersed in water. It is preferred that the oil concentrate is transparent or clear and the **emulsion** obtained from such an oil concentrate have an average particle size of 0.14 microns or less. Such **emulsions** are generally referred to as " microemulsions".

SUMM The translucent or transparent oil concentrate can be rapidly dispersed in water to form the desired fine **emulsion** or microemulsion. The oil concentrate may be rapidly dispersed in water in a large number of ways known to the. . . may include stirring with various power driven stirrers, ultrasonic mixers, blenders, colloid mills, homogenizers, in-line mixers and pumps. The fine **emulsions** and microemulsions of this invention may be prepared by batch, semi-continuous, or continuous processes.

SUMM It is generally preferred that both the oil concentrate and the **emulsions** resulting from the oil concentrates be prepared at or close to room temperature. Higher and lower temperatures consistent with liquid. . .

SUMM . . . sum (x+y) is not so large that the oil concentrate cannot be dispersed in water rapidly enough to obtain an **emulsion** with an average particle size of less than 0.3 microns. It is preferred, however, that the sum (x+y) be less. . . can be provided so that the viscous oil concentrate may be rapidly dispersed in water in order to obtain an **emulsion** with an average particle size less than 0.3 microns. It is also preferred that both d and d' are zero. . .

SUMM . . . of the described polar radicals and most preferably from about 2 to 10 molar percent of the described polar radical. **Emulsions** of polyorganosiloxanes containing more than 15 molar percent polar radical may be prepared by the process of this invention but the cost of such **emulsions** would significantly reduce their use in commerce.

SUMM . . . weight percent based on the total polyorganosiloxane present. If such non-polar radical containing polyorganosiloxane are to be incorporated into the **emulsions** of this invention they should be added along with and at the same time as the polar radical containing polyorganosiloxane. . .

SUMM . . . certain polar radical containing polyorganosiloxane, surfactants with an HLB value of less than 8 may be insoluble therein and produce **emulsions** with average particle sizes less than 0.3 microns by the procedures of this invention. In other words, the insolubility of. . .

SUMM . . . employed as the insoluble surfactant, the cloud point of the surfactant should be higher than the temperature at which the **emulsion** is prepared. It appears that such nonionic surfactants (i.e. with low cloud points) may be used if other surfactants which. . .

SUMM . . . with varying amounts of ethylene oxide units available from Rohm and Haas Company, Philadelphia, Pa. under the general Triton tradename; **trimethylnonyl** polyethylene glycol ethers and polyethylene glycol ethers of linear 11-15 carbon atoms containing alcohols, available from Union Carbide Corporation, New. . .

SUMM . . . oil of interest and, therefore, would not be suitable for use as the only surfactant or primary surfactant in the **emulsions** of this invention. Other surfactants may have cloud points that are too low or have other properties that do not. . .

SUMM . . . one required surfactant which is insoluble in the polyorganosiloxane oil, may also be present in the oil concentrate or fine **emulsion** or microemulsion of this invention. The required insoluble surfactant will be referred to as the "primary surfactant" while the other. . . be employed, among other things, to improve the stability of the oil concentrate, to improve the stability of the fine **emulsion** or microemulsion, or to allow for smaller average particle size of the final **emulsion**. The secondary surfactants

may be added at the same time the primary surfactant is added to form the oil concentrate,. . . the dilution water before the oil concentrate is rapidly dispersed therein, or they may be added to the final fine **emulsion** or microemulsion. If the secondary surfactant is added to the translucent oil concentrate and the resulting oil concentrate turns cloudy. . .

SUMM . . . phase. Lower levels, down to about 80 percent of a monomolecular layer, of the primary surfactant may be used but **emulsions** produced from such oil concentrate may be less satisfactory. Naturally, levels of the primary surfactant in excess of the one. . . interface of the aqueous and dispersed phases. In general, the smaller the average particle size of the polyorganosiloxane in the **emulsion** the more surfactant needed to form a monomolecular layer. Generally, the amount of primary surfactant should preferably be in the. . .

SUMM The translucent or transparent oil concentrate is rapidly dispersed in water to form fine **emulsions** with average particle sizes of less than 0.3 microns or microemulsions with average particle sizes of less than 0.14 microns.. . . is rapidly disperse into is not critical so long as (1) there is sufficient dilution water so that the resulting **emulsion** is an oil-in-water type and (2) the resulting **emulsion** has sufficient stability for its intended use. **Emulsions** may be prepared by the methods of this invention which contain from about 5 percent to 55 percent by weight of the polyorganosiloxane based on the total weight of the **emulsion**. Preferably, the **emulsions** of this invention contain about 10 to 40 weight percent of the polyorganosiloxane based on the weight of the total **emulsion**. **Emulsions** may be prepared with even less of the polyorganosiloxane but such **emulsion** may prove economically unattractive.

SUMM The fine **emulsions** prepared by the methods of this invention are generally translucent in nature with an average particle size of less than. . . in appearance with an average particle size of less than 0.14 microns. Because of the very small particle size, these **emulsions** should be advantageous in the preparation of clear silicone containing products, as additives to clear aqueous solutions, and in cases where superior **emulsion** stability is desired. The **emulsion** of this invention may be used in cosmetics and personal case products such as hand and face lotions, creams, shampoos,. . . hair rinses and conditioners, shaving lotions and creams, etc; in polishes and waxes; and in floor cleaners and sanitizers. Such **emulsions** may also be used to treat leather and textile goods. Other uses will be apparent to those skilled in the. . .

SUMM . . . light scattering and the cumulant method of D. E. Koppel [.J. Chem. Phys., 57, 4814(1972)]. Both the oil concentrates and **emulsions** were examined in an one ounce vial for visual appearance.

DETD . . . drops of the oil concentrate was gently added to water in a vial to obtain about 5 percent silicone oil **emulsions**. After addition of the oil concentrate the vials were shaken by hand after varying time delays. The average particle size. . .

DETD . . . than or equal to ten seconds a microemulsion was obtained. With a time delay of 45 seconds only a fine **emulsion** was obtained. Thus it appears that the smallest average particle size is obtained when the delay between addition of the. . .

DETD . . . concentrate was noted and the oil concentrate was then added, with agitation, to 2000 parts of water to prepare an **emulsion**.

The average particle size of the resulting **emulsion** was determined.

DETD In run 11 all of the water required to form a 5 percent silicone **emulsion** was added to the oil concentrate in a continuous manner. Therefore, in run 11 the oil concentrate was not rapidly dispersed into water to form the final 5 percent silicone **emulsion**.

DETD . . . parts of water. Aliquots of the oil concentrate were added, with rapid dispersion, to varying amounts of water to form **emulsions** containing varying amounts of silicone.

DETD

Percent Silicone Oil in Final **Emulsion**	Average Particle Size (Microns)
5	0.088
10	0.082
20	0.082
30	0.080
40	0.087

DETD Several **emulsions** similar to those described in Example 5 were prepared except that the amount of the surfactant was significantly reduced. A. . . Tergitol TMN-6 surfactant. The oil concentrate was added to 2000 parts of water with rapid dispersion. The resulting clear blue **emulsion** (about 5 percent silicone) had an average particle size of 0.110 microns. A translucent oil concentrate was prepared from 100. . . TMN-6, and 22 parts water. Upon rapidly dispersing this translucent oil concentrate in about 2000 parts water, a translucent fine **emulsion**, with an average particle size of 0.19 microns, was obtained.

DETD . . . noted, a few drops of the oil concentrate were rapidly dispersed in water to form a 5 percent silicone oil **emulsion**.

DETD

Parts of Water Added to Oil Concentrate	Appearance of Oil Concentrate	Appearance of Final **Emulsion**
16	Not clear	Opaque
20	Almost clear	Opaque
23	Clear	Translucent
24	Clear	Transparent
25	Clear	Transparent
27	Clear	Transparent

DETD Only the clear oil concentrates gave satisfactorily fine **emulsions** or microemulsion when diluted in water.

DETD An attempt was made to prepare a small particle size **emulsion** using the amino-functional silicone (100 parts) of Example 1, 29 parts of Triton X100 (a nonionic surfactant, octylphenoxy polyethoxy (9-10). . . not rendered clear upon the addition of water. Dilution of the opaque oil concentrate (to form a 5 percent silicone **emulsion**) in the same manner as earlier examples gave only a coarse, milky dispersion. Substituting Triton X45 (a nonionic surfactant,

octylphenoxy. . .

DETD To form suitable **emulsion**, as described in this present invention, a surfactant is required that allows the formation of a clear oil concentrate upon. . .

DETD An attempt to prepare a small particle size **emulsion** was made using the silicone oil described in Example 1 and Tergitol TMN-3 (a nonionic surfactant, trimethyl nonyl polyethylene glycol. . . gave a clear mixture without the addition of water. Upon dilution with about 2000 parts H.sub.2 O a white coarse **emulsion** was obtained. Even with 2 and 5 parts of water added to the silicone oil/surfactant mixture, a milky **emulsion** was obtained upon dilution in about 2000 parts water. To form suitable fine **emulsion** or microemulsion the surfactant should be insoluble in the silicone oil.

DETD This example shows the preparation of **emulsion** using the same polyorganosiloxane of Example 8 with nonionic surfactants from the Triton series. The surfactants used were all octylphenoxy. . .

DETD . . . concentrate which was then rapidly dispersed in 2000 parts H.sub.2 O in order to prepare a 5 percent silicone oil **emulsion** . The following results were obtained.

DETD

Oil Concentrate		Final **Emulsion**	
Sur-factant	Parts H.sub.2 O added	Appearance	Particle Size Appearance (Microns)
X15	1-2	Not clear	very coarse --
X45	5	clear. . .	

DETD The surfactant X15 did not yield a suitable fine **emulsion** or microemulsion because (1) the surfactant was soluble in the silicone oil and (2) clear oil concentrate could not be. . . less clear and thus less satisfactory. Surfactant X45 did form a clear oil concentrate but did not yield a suitable **emulsion** since its cloud point (0° C.) is less than the temperature at which the **emulsion** was prepared. Oil concentrates containing surfactants X114, X100 and X102 all yielded microemulsions using the procedure of this present invention. An oil concentrate with surfactant X165 gave a fine **emulsion** using the procedure of this invention. It is possible, however that X165 could be employed to prepare microemulsions if the. . .

DETD This example shows the use of an anionic phosphate ester surfactant to prepare the **emulsions** of this invention. The polyorganosiloxane used the carboxylic acid functional siloxane as described in Example 8. The phosphate ester was. . .

DETD This example demonstrates the preparation of **emulsions** having an average particle size less than 0.3 microns using silicone oils having widely differing degrees of polymerization. The silicone. . .

DETD . . . clear oil concentrate. The oil concentrate was dispersed rapidly by hand shaking in 2000 parts of water to form an **emulsion** with a silicon oil content of about 5 percent.

DETD . . . cs at 25° C. The oil concentrate prepared from the 300 degree of polymerization siloxane was very viscous and gel-like. **Emulsions** were prepared with the following results.

DETD . . . polymerization of 50 and 200 both formed excellent microemulsions. The 300 degree of polymerization silicone oil only

formed a fine **emulsion**. Because of the viscous nature of the 300 degree of polymerization siloxane oil concentrate it was very difficult to disperse. . . of polymerization silicone oil concentrate was added to water and immediately placed in an ultrasonic bath for 5 minutes. The **emulsion** obtained had an average particle size of 0.145 microns. A sample of this same oil concentrate (300 degree of polymerization. . .

DETD . . . groups. One portion of the clear oil concentrate was rapidly dispersed in about 2000 parts water to form a translucent **emulsion**. Another portion of the clear oil concentrate was rapidly dispersed in 1765 parts of water containing 93 parts of Triton. . .

DETD . . . Without the ethylene glycol present, the microemulsion broke after only one freeze/thaw cycle. One freeze/thaw cycle consists of freezing the **emulsion** at -20° C. for about 18 hours and then thawing it at room temperature for about 6 hours.

DETD This example demonstrates the preparation of fine **emulsions** and microemulsions using a polar group containing polyorganosiloxane which is diluted with a polyorganosiloxane which does not contain polar groups.. . .

DETD . . . of dimethylsiloxane cyclics, and 30 parts of Tergitol TMN-6. Upon rapid dispersion of the oil concentrate in water a fine **emulsion** was obtained.

CLM What is claimed is:

1. A process for preparing a polyorganosiloxane **emulsion** of the oil-in-water type, said process comprising (A) forming a translucent oil concentrate by (1) mixing a polyorganosiloxane with at. . . (1) where water is added in an amount sufficient to produce a translucent oil concentrate; and (B) forming a polyorganosiloxane **emulsion** of the oil-in-water by rapidly dispersing said translucent oil concentrate in water where the average particle size of said polyorganosiloxane in said **emulsion** is less than 0.14 micron.

. . . in an amount sufficient to provide at least one monomolecular layer of said insoluble surfactant for said polyorganosiloxane in said **emulsion** formed in step (B).

. . . in an amount sufficient to provide at least one monomolecular layer of said insoluble surfactant for said polyorganosiloxane in said **emulsion** formed in step (B).

. . . has a hydrophilic-lipophilic balance value greater than about 8 and is selected from the group consisting of octylphenoxy polyethoxy ethanols, **trimethylnonyl** polyethylene glycol ethers, polyethylene glycol ethers of linear 11-15 carbon atom containing alcohols, ethoxylated tridecyl ethers, alkali metal salts of. . .

23. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 1.

24. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 2.

25. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 3.

26. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 4.

27. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 7.

28. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 8.

29. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 10.

30. A process for preparing a polyorganosiloxane **emulsion** of the oil-in-water type, said process comprising (A) forming a translucent oil concentrate by mixing a polyorganosiloxane, at least one. . . and where water is present in an amount sufficient to produce a translucent oil concentrate; and (B) forming a polyorganosiloxane **emulsion** of the oil-in-water type by rapidly dispersing said translucent oil concentrate in water where the average particle size of said polyorganosiloxane in said **emulsion** is less than 0.14 micron.

. . . in an amount sufficient to provide at least one monomolecular layer of said insoluble surfactant for said polyorganosiloxane in said **emulsion** formed in step (B).

. . . in an amount sufficient to provide at least one monomolecular layer of said insoluble surfactant for said polyorganosiloxane in said **emulsion** formed in step (B).

. . . surfactant has a hydrophilic-lipophilic balance value greater than 8 and is selected from the group consisting of octylphenoxy polyethoxy ethanols, **trimethylnonyl** polyethylene glycol ethers, polyethylene glycol ethers of linear 11-15 carbon atom containing alcohols, ethoxylated tridecyl ethers, alkali metal salts of. . .

. . . surfactant has a hydrophilic-lipophilic balance value greater than 8 and is selected from the group consisting of octylphenoxy polyethoxy ethanols, **trimethylnonyl** polyethylene glycol ethers, polyethylene glycol ethers of linear 11-15 carbon atom containing alcohols, ethoxylated tridecyl ethers, alkali metal salts of. . .

42. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 30.

43. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 31.

44. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 34.

45. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 35.

46. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 36.

47. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 37.

48. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 38.

49. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 39.

50. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 40.

51. A polyorganosiloxane **emulsion** of the oil-in-water type as prepared by the process of claim 41.

. . . of water to produce a translucent mixture; wherein said oil concentrate, when rapidly dispersed in water, will produce a polyorganosiloxane **emulsion** of the oil-in-water type with an average particle size of said polyorganosiloxane in said **emulsion** of less than 0.14 micron.

. . . in an amount sufficient to provide at least one monomolecular layer of said insoluble surfactant for said polyorganosiloxane in said **emulsion** formed in step (B).

. . . in an amount sufficient to provide at least one monomolecular layer of said insoluble surfactant for said polyorganosiloxane in said **emulsion** formed in step (B).

. . . has a hydrophilic-lipophilic balance value greater than about 8 and is selected from the group consisting of octylphenoxy polyethoxy ethanols, **trimethylnonyl** polyethylene glycol ethers, polyethylene glycol ethers of linear 11-15 carbon atom containing alcohols, ethoxylated tridecyl ethers, alkali metal salts of. . .

. . . has a hydrophilic-lipophilic balance value greater than about 8 and is selected from the group consisting of octylphenoxy polyethoxy ethanols, **trimethylnonyl** polyethylene glycol ethers, polyethylene glycol ethers of linear 11-15 carbon atom containing alcohols, ethoxylated tridecyl ethers, alkali metal salts of. . .

. . . in an amount sufficient to provide at least one monomolecular layer of said insoluble surfactant for said polyorganosiloxane in said **emulsion** formed in step (B).

. . . has a hydrophilic-lipophilic balance value greater than about 8 and is selected from the group consisting of octylphenoxy polyethoxy ethanols, **trimethylnonyl** polyethylene glycol ethers, polyethylene glycol ethers of linear 11-15 carbon atom containing alcohols, ethoxylated tridecyl ethers, alkali metal salts of. . .

=>

L12 ANSWER 4 OF 5 USPATFULL on STN

ACCESSION NUMBER:	2001:93577 USPATFULL
TITLE:	Bioactive surface coating
INVENTOR(S):	Ottersbach, Peter, Windeck, Germany, Federal Republic of Mensing, Britta, Herne, Germany, Federal Republic of Helary, Gerard, Santeuil, France Jozefowicz, Marcel, Lamorlaye, France Migonney, Veronique, Eaubonne, France Vairon, Jean-Pierre, Bourg la Reine, France
PATENT ASSIGNEE(S):	Huels Aktiengesellschaft, Marl, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6248811	B1	20010619
APPLICATION INFO.:	US 1998-3033		19980105 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1997-19700081	19970103
	DE 1997-19700082	19970103
	DE 1997-19700083	19970103
	DE 1997-19732588	19970729

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Low, Christopher S. F.
ASSISTANT EXAMINER:	Lukton, David
LEGAL REPRESENTATIVE:	Oblon, Spivak, McClelland, Maier & Neustadt, P.C.
NUMBER OF CLAIMS:	16
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT:	1027

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process is disclosed for preparing bioactive, covalently fixed coatings on the surfaces of substrates, by grafting to a surface of the substrate a coating polymer which contains the following monomers in copolymerized form:

(i) at least one monomer of the general formula:

R--(A).sub.a (I),

in which

R is a mono- or diolefinically unsaturated organic radical having a valence a,

A is a carboxyl group, a sulfuric acid group, a sulfonic acid group, a phosphoric acid group, a phosphonic acid group, a phosphorous acid group, a phenolic hydroxyl group, or a salt of one of these acid groups, and

a is 1, 2 or 3; and

(ii) at least one monomer which is sensitive to UV radiation.

Blessing

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD The polymers may be prepared in conventional manner by free-radically initiated polymerization, advantageously by solution or **emulsion** polymerization. Examples of suitable solvents are water; ketones, such as acetone, methyl ethyl ketone and cyclohexanone-ethers, such as diethyl ether,. . .

DETD . . . way for sensitivity to radiation can be prepared in a customary manner by means of free-radically initiated polymerization in solution, **emulsion** or suspension.

IT **210407-46-8**, Cinnamoylethyl methacrylate-dimethyloctylammonium styrenesulfonate-methacrylic acid-tris(trimethylsiloxy)[3-(methacryloyloxy)propyl]silane copolymer 210407-47-9 210407-66-2 210407-67-3 210407-68-4
(bacteria-repellent coating of surfaces with UV-activated covalent bonding)

L12 ANSWER 5 OF 5 USPATFULL on STN

ACCESSION NUMBER:	96:120720 USPATFULL
TITLE:	Method for preparation of printing plate by electrophotographic process
INVENTOR(S):	Kato, Eiichi, Shizuoka, Japan Momota, Makoto, Shizuoka, Japan Ohishi, Hiroyuki, Shizuoka, Japan
PATENT ASSIGNEE(S):	Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5589308		19961231	
APPLICATION INFO.:	US 1995-492701		19950620	(8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1994-160779	19940621

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Goodrow, John
LEGAL REPRESENTATIVE:	Sughrue, Mion, Zinn, Macpeak & Seas
NUMBER OF CLAIMS:	18
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT:	4926

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for preparation of a printing plate by an electrophotographic process comprising forming a peelable transfer layer capable of being removed upon a chemical reaction treatment on a surface of an electrophotographic light-sensitive element, forming a toner image by an electrophotographic process on the transfer layer, heat-transferring the toner image together with the transfer layer onto a receiving material having a surface capable of providing a hydrophilic surface suitable for lithographic printing at the time of printing, and removing the transfer layer on the receiving material upon the chemical reaction treatment wherein the transfer layer has a stratified structure composed of a first transfer layer (T.sub.1) which is contact with the surface of electrophotographic light-sensitive element and is formed by an electrodeposition coating method using thermoplastic resin grains (AL)

Blessing

each containing a rein (A.sub.1) having a glass transition point of from 10° C. to 140° C. or a softening point of from 35° C. to 180° C. and a resin (A.sub.2) having a glass transition point of not more than 45° C. or a softening point of not more than 60° C. wherein the glass transition point or softening point of resin (A.sub.1) is at least 2° C. higher than that of resin (A.sub.2) and a second transfer layer (T.sub.2) provided thereon mainly containing a resin (A.sub.2).

The transfer layer according to the present invention has excellent transferability onto a receiving material under transfer conditions of low temperature and high speed to form transferred images of good qualities thereby providing a printing plate which produces prints of good image qualities.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD The polymerization granulation methods include conventionally known methods using an **emulsion** polymerization reaction, a seed polymerization reaction or a suspension polymerization reaction each conducted in an aqueous system, or using a. . .

DETD . . . described, for example, in Soichi Muroi, Kobunshi Latex no Kagaku, Kobunshi Kankokai (1970), Taira Okuda and Hiroshi Inagaki, Gosei Jushi **Emulsion**, Kobunshi Kankokai (1978), soichi Muroi, Kobunshi Latex Nyumon, Kobunsha (1983), I. Purma and P. C. Wang, **Emulsion** Polymerization, I. Purma and J. L. Gaudon, ACS Symp. Sev., 24, p. 34 (1974), Fumio Kitahara et al, Bunsan Nyukakei. . .

IT 91105-71-4, Surflon S-382 144070-79-1 162127-42-6, X-22-167B 163916-20-9 163916-24-3 163916-27-6 176771-25-8 **176771-39-4** 176771-40-7 176896-14-3
(release; preparation of durable printing plates by electrophotog.)

L12 ANSWER 3 OF 5 USPATFULL on STN

ACCESSION NUMBER:	2001:141896 USPATFULL
TITLE:	Cosmetic raw material cosmetic product and method for manufacturing cosmetic products
INVENTOR(S):	Morita, Yoshitsugu, Chiba Prefecture, Japan Furukawa, Haruhiko, Chiba Prefecture, Japan Aso, Takayuki, Chiba Prefecture, Japan Hamachi, Tadashi, Chiba Prefecture, Japan
PATENT ASSIGNEE(S):	Dow Corning Toray Silicone, Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6280748	B1	20010828	
APPLICATION INFO.:	US 1999-318997		19990526	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1998-181649	19980612

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Dees, Jose' G.
ASSISTANT EXAMINER:	Choi, Frank
LEGAL REPRESENTATIVE:	De Cesare, James L.
NUMBER OF CLAIMS:	2
EXEMPLARY CLAIM:	1
LINE COUNT:	967

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic raw material possesses excellent compounding stability in cosmetic products. The cosmetic raw material is produced from a vinyl-type polymer having a carbosiloxane dendrimer structure in its side molecular chain. The cosmetic raw material is composed of the vinyl-type polymer having a carbosiloxane dendrimer structure in its side molecular chain, and a solution or a dispersion of a liquid such as a silicone oil, organic oil, alcohol, or water.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . a polydimethylsiloxane and a polyoxyalkylene. Furthermore, Japanese Laid-Open Patent Application Kokai No. 9-208,422 discloses a cosmetic composition which contains an **emulsion** obtained by polymerizing an organopolysiloxane with butyl acrylate, methacrylic acid, styrene, and acrylic acid. However, these cosmetic raw materials have. . .

SUMM . . . μm, preferably between 0.01 and 50 μm. This is because beyond the recommended range, a cosmetic product mixed with the **emulsion** will not have a sufficiently good feel to the skin or to the touch, as well as sufficient rubbing properties. . .

IT 252187-44-3P **252187-45-4P**
(preparation of vinyl polymer having carbosiloxane dendrimer for cosmetic products)

Blessing